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EXAMINER

PHAM, THOMAS K

ART UNIT

PAPER NUMBER

2121

DATE MAILED: 11/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/731,141

Applicant(s)

SEXTON, DANIEL W.

Examiner

Thomas K Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) \*
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Response to Amendment***

1. This action is in response to the amendment filed on 8/10/2004.
2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

**Quotations of U.S. Code Title 35**

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claim Rejections - 35 USC § 103**

5. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,282,454 (“Papadopoulos”) in view of U.S. Patent No. 6,651,190 (“Worley”).

**Referring to claims 1 and 9**

Papadopoulos teaches controlling and monitoring an industrial controller using a Web interface, utilizing a system including a programmable logic controller (PLC), a local server, comprising:

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monitoring and controlling a system using a programmable logic controller (PLC) (col. 4 lines 36-46, "Associated with the PLC ... information of the PLC 32"); exchanging communications between the PLC and a local server (col. 4 lines 21-35, "The web server 30 ... through the web server 30") displaying information from the PLC (col. 8 lines 37-43, "The different request ... Ethernet statistics and others"); transmitting commands from client interface to the PLC (col. 4 lines 30-35, "The client interface allows ... through the web server 30"), **wherein the PLC is configured to determine whether to energize an output module based on a state of an input module** (col. 2 lines 48-50, "*at least one PLC control system running an application program for controlling output devices in response to status of input device*") but does not teach transmitting, via the wireless ISP server, commands from a wireless user communication device to the remote monitored controller (PLC). However, **Worley teaches a technician monitors and transmits commands from a remote computer station 132 (see fig. 3) to a host computer 110 (local server) for communication with a remote maintenance controller 100 via a wireless ISP server** (col. 7 lines 28-38, "*communication links from a remote computer station to the ... to the remote maintenance controller 100*") [Official Notice is taken that the remote computer station could be any type of communication device including portable laptop, desktop, PDA etc] for the purpose of monitoring and transmitting commands to control a remote device. Therefore, **it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the wireless ISP communication of Worley with the web interfacing programmable controller of Papadopoulos because it would provide for the purpose of monitoring and transmitting commands to control a remote device from anywhere a wireless connection is available.**

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**Regarding claim 2**

Papadopoulos teaches a step of exchanging communications between the PLC server and the local server further comprises the step of sending PLC operational data from the PLC to the local server (col. 5 line 64 to col. 6 line 45, "The PLC 32 interfaces ... the end of a scan interrupt").

**Regarding claim 3**

Papadopoulos teaches a step of exchanging communications between the local server and the ISP server further comprises the step of sending the PLC operational data from the local server to the ISP server (col. 9 lines 56-67, "A user at a remote ... previously shown in Table 1"). Worley teaches exchanging communication between the remote computer station and the remote maintenance device via a wireless ISP server as stated in the above rejection to claim 1.

**Regarding claim 4**

Papadopoulos teaches sending the monitoring device operational data from the ISP server to the browser, and displaying the monitoring device operational data on the client display (col. 4 lines 1-4, "The browser 10 will send ... the process control system 6"). Worley teaches exchanging communication between the remote computer station and the remote maintenance device via a wireless ISP server as stated in the above rejection to claim 1.

**Regarding claim 5**

Papadopoulos teaches inputting at least one PLC command (col. 4 lines 33-35, "Controlling the PLC 32 ... through the web server 30"); inputting PLC operational response data using the input device (col. 2 lines 54-62, "The Web interface provides ... through the Internet access"); sending the at least one PLC command from the client interface to the ISP server (col. 4 lines 30-35, "The client interface ... through the web server 30"); and sending the PLC operational response

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data from the client interface to the ISP server (col. 4 lines 36-41, "Associated with the PLC 32 ... and receive the response") Worley teaches exchanging communication between the remote computer station and the remote maintenance device via a wireless ISP server as stated in the above rejection to claim 1.

**Regarding claim 6**

Papadopoulos teaches sending the at least one PLC command from the ISP server to the local server using the Internet (col. 4 lines 30-35, "The client interface ... through the web server 30"); and sending the PLC operational response data from the ISP server to the local server using the Internet (col. 4 lines 36-41, "Associated with the PLC 32 ... and receive the response"). Worley teaches exchanging communication between the remote computer station and the remote maintenance device via a wireless ISP server as stated in the above rejection to claim 1.

**Regarding claim 7**

Papadopoulos teaches a step of exchanging communications between the PLC and the local server further comprises the steps of: sending the at least one PLC command from the local server to the PLC (col. 5 line 64 to col. 6 line 45, "The PLC 32 interfaces ... the end of a scan interrupt"); and sending the PLC operational data from the local server to the PLC (col. 9 lines 17-29, "The operating system 44 ... processing the request").

**Regarding claim 8**

Papadopoulos teaches controlling an operation of the PLC using the at least one PLC command (col. 6 lines 35-45); and controlling the operation of the PLC using the PLC operational response data (col. 9 lines 17-29, "The operating system 44 ... processing the request").

**Regarding claim 10**

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Papadopoulos teaches local server further configured to access PLC operational data from said PLC (col. 5 line 64 to col. 6 line 45, "The PLC 32 interfaces ... the end of a scan interrupt").

**Regarding claim 11**

Papadopoulos teaches local server further configured to communicate the PLC operational data to the ISP server (col. 4 lines 21-35, "The web server 30 ... through the web server 30"). Worley teaches exchanging communication between the remote computer station and the remote maintenance device via a wireless ISP server as stated in the above rejection to claim 9.

**Regarding claim 12**

Papadopoulos teaches ISP server further configured to communicate the PLC operational data to the web browser (col. 4 lines 43-46, "Using a web browser ... information of the PLC 32").

Worley teaches exchanging communication between the remote computer station and the remote maintenance device via a wireless ISP server as stated in the above rejection to claim 9.

**Regarding claim 13**

Papadopoulos teaches communication with the PLC operational data. Worley teaches exchanging communication between the remote computer station and the remote maintenance device via a wireless ISP server as stated in the above rejection to claim 9,

**Regarding claim 14**

Papadopoulos teaches client interface further configured to initiate at least one PLC command and communicate the PLC command to the ISP server (col. 4 lines 30-35, "The client interface ... through the web server 30"). Worley teaches exchanging communication between the remote computer station and the remote maintenance device via a wireless ISP server as stated in the above rejection to claim 9.

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**Regarding claim 15**

Papadopoulos teaches client interface further configured to initiate PLC operational response data and communicate the PLC operational response data to said ISP server (col. 4 lines 36-41, “Associated with the PLC 32 ... and receive the response”). Worley teaches exchanging communication between the remote computer station and the remote maintenance device via a wireless ISP server as stated in the above rejection to claim 9.

**Regarding claim 16**

Papadopoulos teaches ISP server further configured to communicate the at least one PLC command and the PLC operational response data to said local server (col. 4 lines 36-41, “Associated with the PLC 32 ... and receive the response”). Worley teaches exchanging communication between the remote computer station and the remote maintenance device via a wireless ISP server as stated in the above rejection to claim 9.

**Regarding claim 17**

Papadopoulos teaches local server further configured to communicate the at least one PLC command and the PLC operational response data to the PLC (col. 4 lines 39-41, “The web server 30 ... receive the response”).

**Regarding claim 18**

Worley teaches remote computer station inheritly with a user interface configured for an input of information and a display configured to display the user input information and communication with the remote maintenance computer via wireless ISP server as stated in the above rejection to claim 9.

**Regarding claim 19**



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Papadopoulos teaches communication with the PLC operational data but does not teach formatting and processing operational data into a wireless markup language. However, Worley teaches exchanging communication between the remote computer station and the remote maintenance device via a wireless ISP server as stated in the above rejection to claim 9. It would have been obvious to one of ordinary skill in the art at the time of the invention to format and process the operational data into the wireless markup language in order to view the data using Wireless Application Protocol (WAP), which enable wireless portable devices to communicate over the Internet.

#### **Regarding claim 20**

Papadopoulos teaches communication with the PLC operational data but does not teach applying a wireless application protocol to the PLC operational data. However, Worley teaches exchanging communication between the remote computer station and the remote maintenance device via a wireless ISP server as stated in the above rejection to claim 9. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply a wireless application protocol to the PLC operational data for viewing over the Internet where cites are formatted with wireless markup language.

#### **Response to Arguments**

6. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

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**Conclusion**

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner *Thomas Pham*; whose telephone number is (571) 272-3689, Monday - Thursday from 6:30 AM - 5:00 PM EST or contact Supervisor *Mr. Anthony Knight* at (571) 272-3687.

Any response to this office action should be mailed to: **Commissioner for Patents, P.O. Box 1450, Alexandria VA 22313-1450**. Responses may also be faxed to the **official fax number (703) 872- 9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**Thomas Pham**  
*Patent Examiner*

**TP**

November 19, 2004

  
**Anthony Knight**  
**Supervisory Patent Examiner**  
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